

The same job but different earnings. The women graduates' experience from Catalan universities.

The Futures We Want: Global Sociology
and the Struggles for a Better World



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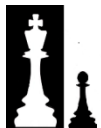
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Outline

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Main Objective:

To explore Income Gap between university's men and women

Source of data:

1) Catalan University Quality Assurance Agency (AQU Catalunya): Studies on graduate employment and labour market outcomes. 3 Surveys:

Survey 2008 (Generation 2003-2004)			Survey 2011 (Generation 2006-2007)			Survey 2014 (Generation 2009-2010)		
Reference Population	Sample (AQU)	Sample error	Reference Population	Sample (AQU)	Sample error	Reference Population	Sample (AQU)	Sample error
22.343	11.771	0.62%	21.596	11.843	0.62%	21.501	11.866	0.62%
Full time workers of Public universities (Sample AQU)								
9.461			8.521			7.113		

2) To compare with Overall population we use the Annual Wage Structure Survey (Encuesta Anual de Estructura Salarial -EAES) INE of years 2008 to 2013.

Sample size of approximately 28,500 establishments and 220,000 workers.

Hypothesis: The gender income gap is slightly diminishing during time of analysis.

Methodology: The gender income gap is calculated as follow:

$$\text{Wage Gap} = \frac{[\text{Men's (Median) Earnings} - \text{Women's (Median) Earnings}]}{\text{Men's (Median) Earnings}} \cdot 100$$

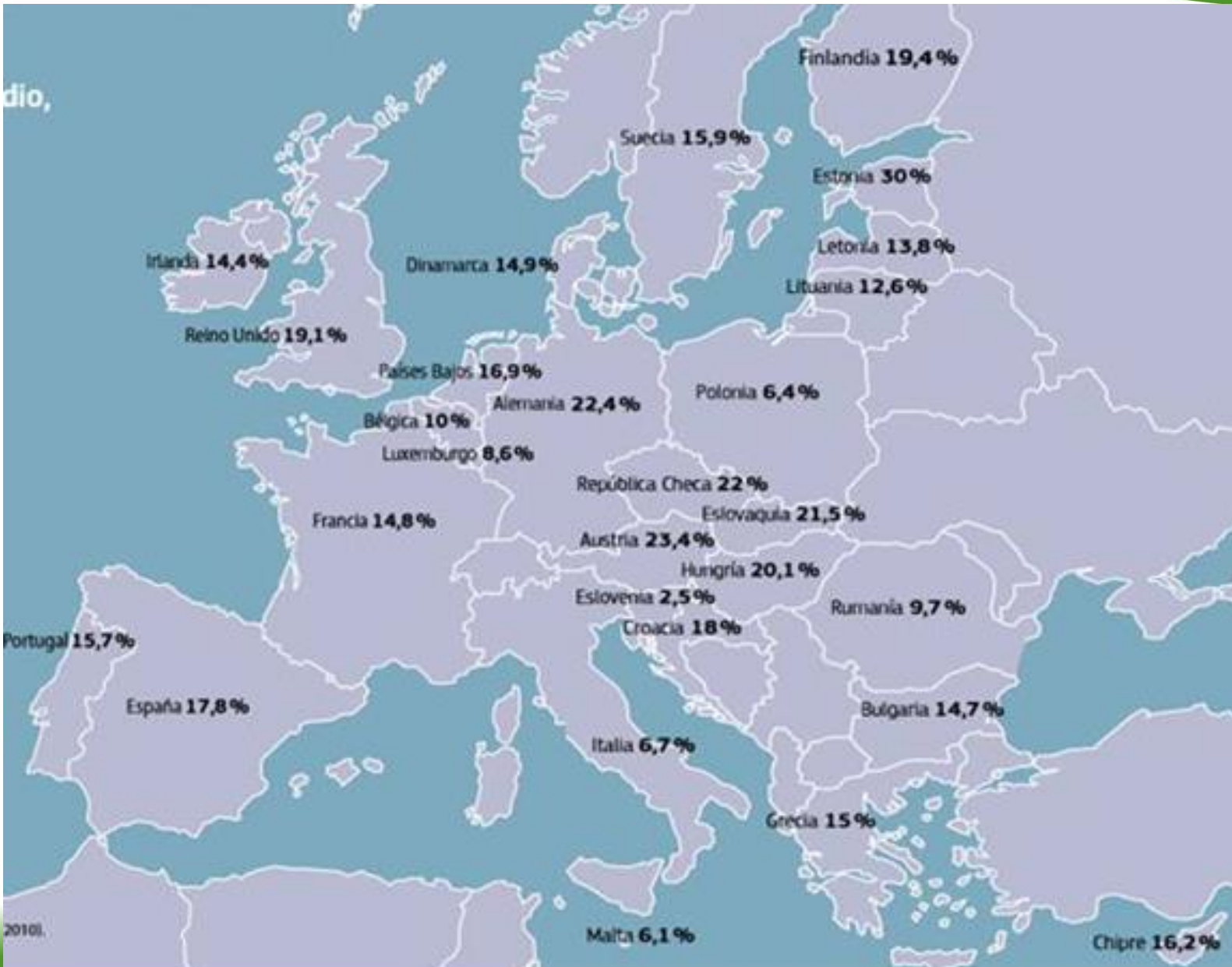
European Commission define Income Gap as “the difference between the wages earned by workers of both sexes, calculated on the basis of the average difference between gross hourly earnings of all men workers” (CE, 2014: 4)

Other techniques: T-Test, variance analysis and linear regression analysis.



Income GAP: **Europe**

A General Picture



The European Commission (2014) has estimated the wage gap:

16,4% para UE-28 en 2012.

Spain: 1,4 point above the average.

Income GAP: Spain

Differences between average earnings by type of registration (annual income or hours) of all Spanish workers

Ganancia media por trabajador	2008	2009	2010	2011	2012	2013
Brecha (ingreso anual)	21,9	22,0	22,5	23,0	23,9	24,0
Brecha (ingreso horario)	15,7	15,9	14,9	16,3	17,2	16,8
Diferencia	6,1	6,1	7,6	6,7	6,7	7,2

The average annual earnings per worker includes total salary payments in cash and payments in goods.

Source: prepared on the basis of Annual Wage Structure Survey (SEAL), INE (2015)

- ✓ Between 2008 and 2013 increased both gaps .
- ✓ The **annual income** is rising continuously while the hourly income in 2010 experiment a decrease.

Wage gap of Spanish workers according to hourly earnings declared in EAES

Activity Sectors	2008	2009	2010	2011	2012	2013
Industry	22,5	21,3	19,8	21,8	21,3	20,2
Construction	-1,8	3,7	0,5	0,6	-1,5	2,6
Services	17,9	17,8	16,8	17,0	17,6	16,6
Occupations (*)	2008	2009	2010	2011	2012	2013
High	16,8	17,1	16,2	16,1	16,6	16,1
Medium	20,5	20,4	18,7	19,2	20,3	19,7
Low	21,6	22,3	20,9	21,7	21,6	21,2
Type de contract	2008	2009	2010	2011	2012	2013
Indefinite duration	18,21	18,57	17,20	18,08	18,76	18,45
Fixed-term	3,54	-0,26	1,78	3,34	4,99	3,13
Total income gap	15,7	15,9	14,9	16,3	17,2	16,8

(*) Large groups of occupation as CNO: High includes groups 1, 2 and 3; Media includes groups 4, 5, 6 and 7 and includes . Low groups 8 and 9.

Source: prepared on the basis of Annual Wage Structure Survey (SEAL), INE (2015)

Income GAP: Catalan graduates

Full-time workers

Full time workers	2008	2011	2014
Type of contract	Income gap		
<i>Fijo</i>	15,4	14,6	17,2
<i>Autónomo</i>	14,7	17,1	12,5
<i>Temporal</i>	7,7	9,0	10,7
Enterprise	Income gap		
<i>Público</i>	9,9	10,2	12,4 *
<i>Privado</i>	15,3	14,7	16,3 *
Functions require university education	Income gap		
<i>Funciones no universitarias</i>	14,1	16,7	16,3
<i>Funciones universitarias</i>	16,9	13,5	15,2
Study areas	Income gap		
<i>Humanidades</i>	3,0	5,9	3,9
<i>Ciencias Sociales</i>	9,2	9,1	12,7
<i>Economía, ADE, Empresariales y Derecho</i>	9,1	7,9	12,8
<i>Ciencias Experimentales</i>	8,7	3,1	6,4
<i>Ciencias de la Salud</i>	8,7	9,1	11,4
<i>Técnica</i>	7,0	9,3	6,6
Educational level of parents	Income gap		
<i>Los dos tienen hasta estudios primarios</i>	16,6	14,4	16,3
<i>Uno de los dos tiene estudios medios</i>	14,6	12,0	12,8
<i>Los dos tienen estudios medios</i>	10,9	13,9	14,8
<i>Uno de los dos tiene estudios superiores</i>	13,2	12,5	14,8
<i>Los dos tienen estudios superiores</i>	9,6	12,5	15,3

* Diferencias estadísticas no sig. entre categorías de la variable
Fuente: Elaboración propia sobre AQU

Income GAP:

2008	2011	2014
14,2	13,5	15,4

- ✓ Gender gaps are lower among graduates than those that exist in society in general.
- ✓ Are reduced when the contract is temporary,
- ✓ Increases in the private sector,
- ✓ It has high variation between areas,
- ✓ It is fairly homogeneous among different social backgrounds.

Full-time workers: Catalan graduates

Year 2014: How much less earn women per year, compared to mean?

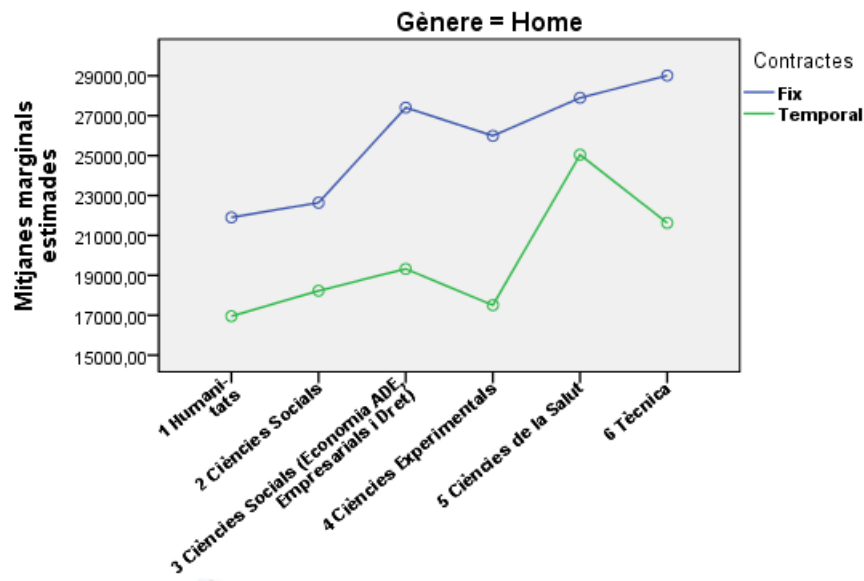
Humanidades		Ciencias Sociales		Economía, ADE, Empresariales y Derecho		Ciencias Experimentales		Ciencias de la Salud		Técnica		Total	
Fijo	Temporal	Fijo	Temporal	Fijo	Temporal	Fijo	Temporal	Fijo	Temporal	Fijo	Temporal	Fijo	Temporal
-2153	-598	-3686	-2285	-4580	-1323	-3807	664	-4600	-2396	-3743	-794	-3762	-1122

But these differences should they be only gender ? Or, also involved the study area and the type of contract? The differences are due primarily to the study area, second to the type of contract and thirdly sex. In addition there are interactions among:

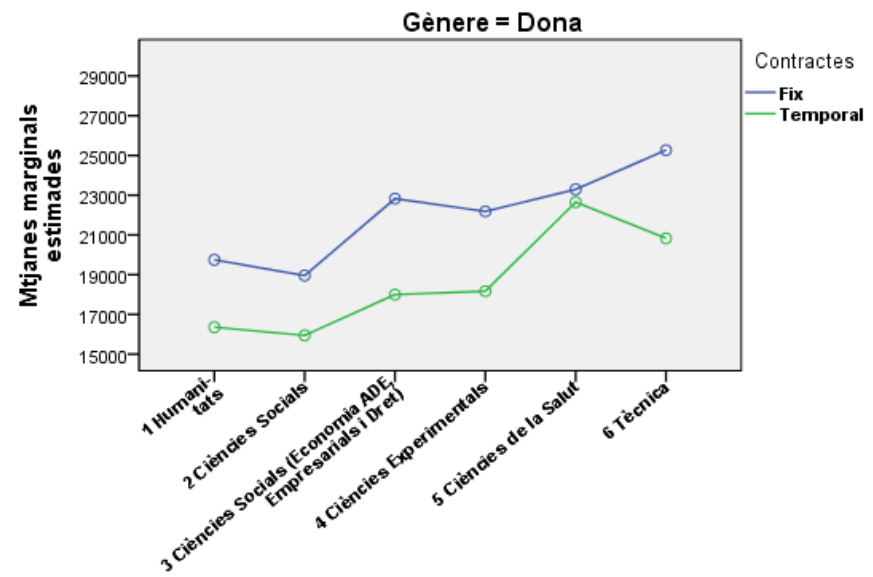
- Area and type of contract (technical area with higher fixed income contracts, temporary contracts Health with higher incomes, etc.)
- Contract and sex (more associated with fixed contracts with higher incomes men).

Similar to 2011 results.

Punt mig interval guanyys.



Punt mig interval guanyys.



Full-time workers: Catalan graduates

Codificació CNO. Un dígit	Casos	%
1 Directores y gerentes	233	3,3
2 Técnicos y profesionales científicos e intelectuales	4534	64,3
3 Técnicos; profesionales de apoyo	1100	15,6
4 Empleado contable, administrativo y otros empleados de oficina	604	8,6
5 Trabajadores de los servicios de restauración, personales, protección y vendedores	431	6,1
6 Trabajadores cualificados en el sector agrícola, ganadero, forestal y pesquero	23	0,3
7 Artesanos y trabajadores cualificados de las industrias manufactureras y la construcción	35	0,5
8 Operadores de instalaciones y maquinaria, y montadores	64	0,9
9 Ocupaciones elementales	32	0,5
Total	7056	100

67% of graduates

Average level

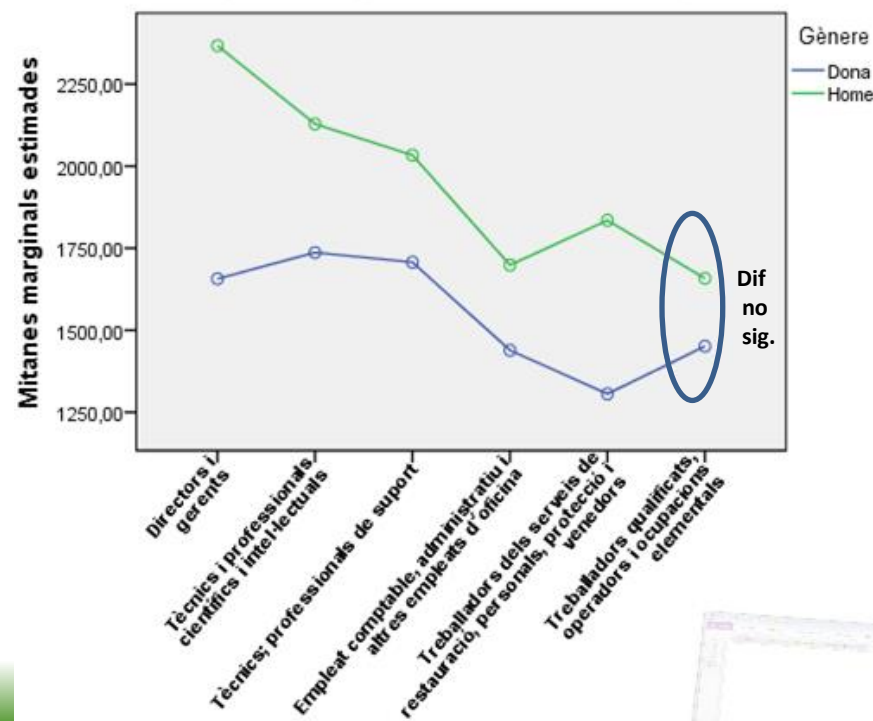
17% of graduates

But it could also be that wage differences are due to men and women perform different occupations ...

Controlling for occupation are also significant differences.



Mitjanes marginals estimades de Guanyos mensuals.



Full-time workers: Catalan graduates

Some clues

Labour insertion in 2014

Linear regression. Dependent variable: Monthly Income

Independent variables	Coeficientes no estandarizados		Coef. Tipifi.	t	Sig.	Beta*R de Pearson	Distr Var. Expli- cada %
	B	Error típ.	Beta				
Work							
Occupational calification: Directores y gerentes*							
Técnicos y profesionales científicos e intelectuales	-121,05	39,59	-0,08	-3,06	0,00	-0,90	-2,94
Técnicos; profesionales de apoyo	-224,42	43,21	-0,11	-5,19	0,00	-0,18	-0,59
Empleado contable, administrativo y otros empleados de oficina	-376,75	47,58	-0,14	-7,92	0,00	1,95	6,36
Trabajadores de los servicios de restauración, personales, protección y vendedores	-333,98	51,34	-0,11	-6,50	0,00	1,19	3,89
Trabajadores cualificados, operadores y ocupaciones elementales	-363,92	66,65	-0,07	-5,46	0,00	0,34	1,09
Tipo de Contrato: Fijo*							
Autónomo	-502,13	26,78	-0,20	-18,75	0,00	3,01	9,81
Temporal	-325,56	19,27	-0,19	-16,90	0,00	4,02	13,07
Rama: Industria, agricultura-pesca*							
Construcción, comercio, transporte, hostelería	-184,33	27,45	-0,09	-6,71	0,00	0,52	1,70
Téc. Información, comunicación (TIC) y Finanzas	-71,21	26,98	-0,03	-2,64	0,01	-0,29	-0,95
Servicios empresariales	-203,14	27,87	-0,10	-7,29	0,00	0,31	1,00
Servicio público	-144,60	43,82	-0,05	-3,30	0,00	-0,26	-0,84
Educación y cultura	-347,02	31,16	-0,17	-11,14	0,00	2,59	8,42
Sanidad y atención social	-228,88	32,00	-0,11	-7,15	0,00	0,44	1,44
Sector: Privado*							
Público	164,36	26,39	0,09	6,23	0,00	0,18	0,60
Funciones universitarias: No*							
Realizan funciones universitarias	238,24	22,00	0,13	10,83	0,00	2,51	8,18

The variables that weigh on income:

- type of contract,
- study area,
- **sex**,
- age (experience)
- the branch,
- university tasks
- and occupational qualification

among the most important

Linear regression continued on next page.

Labour insertion in 2014

Linear regression. Dependent variable: Monthly Income

Variables independientes	Coeficientes no estandarizados		Coef. Tipifi.	t	Sig.	Beta*R de Pearson	Distr Var. Expli- cada %
	B	Error típ.	Beta				
Esfera del Estudio							
Área de conocimiento: Técnica*							
Humanidades	-363,32	34,03	-0,13	-10,68	0,00	1,63	5,30
Ciencias Sociales	-344,24	25,03	-0,20	-13,75	0,00	4,83	15,72
Economía, ADE, Empresariales y Derecho	-94,52	24,27	-0,05	-3,89	0,00	-0,23	-0,73
Ciencias Experimentales	-174,84	33,45	-0,06	-5,23	0,00	0,21	0,69
Ciencias de la Salud	9,63	36,18	0,00	0,27	0,79	0,02	0,06
Dedicación al Estudio: Solo estudio*							
Estudio y trabajo relacionado (tiempo completo o parcial)	74,78	18,87	0,05	3,96	0,00	0,67	2,16
Estudio y trabajo no relacionados (tiempo completo o parcial)	56,05	22,47	0,03	2,49	0,01	-0,23	-0,75
Lugar de Estudio: Universidad en No Área Metropolitana*							
Áreas Metropolitanas	110,15	17,80	0,07	6,19	0,00	0,58	1,89
Características sociodemográficas y de Origen social educativo							
Sexo: Varón*							
Mujer	-223,95	17,32	-0,15	-12,93	0,00	3,99	12,98
	23,49	1,58	0,17	14,90	0,00	3,30	10,72
Edad en años							
Nivel educativo de los padres: Los dos tienen estudios superiores*							
Uno de los dos tiene estudios superiores	-133,04	22,62	-0,09	-5,88	0,00	0,04	0,14
Los dos tienen estudios medios	-151,99	30,78	-0,06	-4,94	0,00	0,18	0,58
Uno de los dos tiene estudios medios	-149,96	25,15	-0,08	-5,96	0,00	0,31	0,99
Los dos tienen estudios primarios o no tienen estudios	-75,26	25,68	-0,04	-2,93	0,00	0,00	0,01
Constante	1621,20	69,30	0,00	23,39	0,00	0,00	0,00
Número de casos	6679						
Error Típico	624,9						
R² cuadrado	30,7%						
R² cuadrado ajustada	30,4%						
(*) Categoría de referencia							

(*Educational level of parents, lack the economic level.

¿Glass ceiling?

Sex contributes 13% in the explanation of the total variance of income.

Conclusions

The gender income gap is slightly diminishing during time of analysis.

Catalan graduates general results:

- ✓ Come down between 2008 and 2011
- ✓ Increase between 2011 and 2014
- ✓ Increase point to point 1.2 points (14.2% to 15.4%)



Catalan graduates:

- ✓ Gender gap is lower among graduates than those that exist in general society;
- ✓ Is reduced when the contract is temporary;
- ✓ Increases in the private sector;
- ✓ Has high variation: higher in Social areas, Economy and Health; and
- ✓ It is fairly homogeneous among different social backgrounds.

Spanish population:

- ✓ Between 2008 and 2013 increased both gaps (annual and hourly income).
- ✓ The annual income is rising continuously while the hourly income in 2010 experiment a decrease

Next steps:

- Improving estimations,
- Start comparative analysis between Europe and Latin America



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Thank you!